IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A process for free-radical polymerization in the presence of a regulator, which comprises using, as wherein said regulator comprises, a carbocyclic or heterocyclic compounds compound which contain comprises a leaving group in the allyl or heteroallyl position, or homoallyl or homoheteroallyl position, respectively, where these compounds wherein said carbocyclic or heterocyclic compound, following free-radical hydrogen abstraction, form forms an aromatic system with elimination of a free-radical leaving group.

Claim 2 (Currently Amended): A <u>The</u> process as claimed in claim 1, wherein the aromatic system which forms is an optionally substituted phenyl, pyridine, pyridazine, pyrimidine, pyrazine, pyran, thiopyran, pyrrole, pyrazole, imidazole, furan, oxazole, isoxazole, thiophene, thiazol or isothiazol.

Claim 3 (Currently Amended): A <u>The</u> process as claimed in claim 1, wherein the leaving group is a carboxylate, silyl, sulfonyl, aryl, benzyl, allyl or alkyl group.

Claim 4 (Currently Amended): A <u>The</u> process as claimed in elaims 1 to 3 claim 1, wherein the regulator ehosen is at least one compound from the formulae (I), (II), (III) or (IV)

in which

A is $C-R^1$, N,

E is $C-R^2$, N,

L is $C-R^3$, N,

Q is $C-R^4$, N,

where

R¹-R⁴ independently of one another are hydrogen, C₁-C₁₀-alkyl, C₁-C₁₀-alkoxy, C₁-C₁₀-alkylamino, C₂-C₂₀-dialkylamino, C₁-C₁₀-alkylcarbonyl, C₁-C₁₀-alkylsulfonyl, C₂-C₁₀-alkenyl, C₂-C₁₀-alkynyl, in which at least two of the radicals R¹-R⁴ may be joined together to give a 3- to 8-membered ring,

G is $C-R^5$, N,

where R⁵ is hydrogen, C₁-C₁₀-alkyl,

X is $O, N-R^6, S$,

where R⁶ is hydrogen, C₁-C₁₀-alkoxy, C₁-C₁₀-alkylamino, C₂-C₂₀-dialkylamino, C₁-C₁₀-alkylcarbonyl, C₁-C₁₀-alkylsulfonyl,

Y is $C-R^7$, N,

alkynylcarbonyloxy, C₂-C₁₀-alkynylcarbonylamino, C₂-C₁₀-alkynylsulfonyl, C₃-C₁₀-alkynyloxysulfonyl, C₃-C₁₀-alkynylaminosulfonyl, C₃-C₁₂-cycloalkyl, C₃-C₁₂-cycloalkoxy, C₃-C₁₂-cycloalkylcarbonyl, C₃-C₁₂-cycloalkylcarbonyl, C₃-C₁₂-cycloalkylcarbonyloxy, C₃-C₁₂-cycloalkylcarbonylamino, C₃-C₁₂-cycloalkylsulfonyl, C₃-C₁₂-cycloalkylcarbonylamino, C₃-C₁₂-cycloalkylsulfonyl, C₃-C₁₂-cycloalkylaminosulfonyl, aryl, aryloxy, arylcarbonyl, aryloxycarbonyl, aryloxycarbonyl, arylcarbonyloxy, arylcarbonylamino, arylsulfonyl, aryloxysulfonyl, arylaminosulfonyl,

 $Z \qquad \qquad \text{is COOR}^8, \text{SiR}^9 \text{R}^{10} \text{R}^{11}, \text{SO}_2 \text{R}^{12}, \text{aryl, optionally substituted}$ benzyl, C3-C10-2-alken-1-yl, R^{13}

where

$$R^8$$
, R^{13} are C_1 - C_{10} -alkyl,

 R^9 - R^{11} independently of one another are hydrogen, C_1 - C_{10} -alkyl, in which two of the radicals R^9 - R^{11} may be joined together to give a 3- to 8-membered ring, R^{12} is hydrogen, C_1 - C_{10} -alkyl,

with the proviso that a maximum of 2 heteroatoms are in the ring of the heterocyclic compound.

Claim 5 (Currently Amended): A <u>The process as claimed in elaims 1 to 4 claim 1</u>, wherein the regulator used is cyclohexadienecarboxylic acid optionally substituted by C₁-C₄-alkyl radicals as R⁷, methyl cyclohexadienecarboxylate, ethyl cyclohexadienecarboxylate, dihydrofurancarboxylic acid, methyl dihydrofurancarboxylate and/or ethyl dihydrofurancarboxylate.

Claim 6 (Currently Amended): A <u>The process as claimed in elaims 1 to 5 claim 1</u>, wherein the regulator used is methyl 1-methyl-2,5-cyclohexadiene-1-carboxylate, 1-

isopropyl-2,5-cyclohexadiene-1-carboxylic acid, 1-tert-butyl-2,5-cyclohexadiene-1-carboxylic acid, 1-benzyl-2,5-cyclohexadiene-1-carboxylic acid, 1-allyl-2,5-cyclohexadiene-1-carboxylic acid and/or 1-cyanomethyl-2,5-cyclohexadiene-1-carboxylic acid.

Claim 7 (Currently Amended): A <u>The</u> process as claimed in claims 1 to 6 claim 1, wherein 0.01 to 5% by weight of regulator, based on the total amount of monomers, is used.

Claim 8 (Currently Amended): A <u>The process as claimed in elaims 1 to 7 claim 1</u>, wherein the regulator is <u>used utilized</u> in emulsion, micro emulsion, miniemulsion, suspension, microsuspension, minisuspension, precipitation, bulk and/or in solution polymerizations.

Claim 9 (Currently Amended): A <u>The</u> process as claimed in elaims 1 to 8 claim 1, wherein homopolymers and/or copolymers are prepared.

Claim 10 (Currently Amended): A <u>The process</u> as claimed in elaims 1 to 9 claim 9, wherein the <u>homopolymers and/or copolymers are prepared from free-radically polymerizable</u> monomers <u>comprising used are monoethylenically unsaturated C₃-C₆-carboxylic acids, C₁-C₂₀-(meth)acrylic esters, amides and nitriles, vinyl esters of carboxylic acids containing up to 20 carbon atoms, vinylaromatics having up to 20 carbon atoms, vinyl halides, vinyl ethers of alcohols containing 1 to 10 carbon atoms, aliphatic optionally halogenated hydrocarbons having 2 to 8 carbon atoms and 1 or 2 double bonds, open-chain N-vinylamide compounds, vinylidenes or mixtures of these monomers.</u>

Claim 11 (Currently Amended): The use of the compounds of the formulae (I), (II), (III) or (IV) as claimed in claim 3 as regulators A method for regulating a free-radical polymerization reactions reaction comprising utilizing the compounds of formulae (I), (II), (III) or (IV) as polymerization reaction regulators.